

AMENDMENTS TO THE CLAIMS

1. (Currently Amended) A golf ball comprising a core formed by vulcanizing and press-molding a rubber composition and at least one layer of a cover covering the core, wherein

the rubber composition comprises a base rubber, a co-crosslinking agent, an organic peroxide, a filler and a processing aid,

the base rubber comprises a polybutadiene (a) containing a cis-1,4 bond of not less than 80% and synthesized using lanthanide-containing catalyst,

the organic peroxide comprises an organic peroxide having 10 hours half-life period temperature of 80 to 100 °C,

the processing aid is fatty acid ester, fatty acid salt or a mixture thereof, and

the polybutadiene (a) has a ratio (Mw/Mn) of weight average molecular weight (Mw) to number average molecular weight (Mn) of 2.5 to 3.5, and

the core has a center hardness in JIS-C hardness of 50 to 70, a surface hardness in JIS-C hardness of 70 to 90 and a hardness difference (B-A) between the surface hardness (B) and the center hardness (A) of 15 to 28.

2. (Currently Amended) The ~~rubber composition for~~ golf ball according to Claim 1, wherein the polybutadiene (a) has a Mooney viscosity of not less than 50 to less than 65 ML₁₊₄ (100 °C), ~~a ratio (Mw/Mn) of weight average molecular weight (Mw) to number average molecular weight (Mn) of 2.0 to 6.0.~~

3. (Previously Presented) The golf ball according to Claim 1, wherein the organic peroxide is 1,1-bis (t-butylperoxy)-3,3,5-trimethylcyclohexane.

4. (Previously Presented) The golf ball according to Claim 1, wherein the processing aid is contained in an amount of 0.1 to 10 parts by weight, based on 100 parts by weight of the base rubber.

5. (Previously Presented) The golf ball according to Claim 1, wherein the vulcanization of the rubber composition is conducted by press molding at 100 to 130 °C.